

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number
WO 2005/001386 A3

(51) International Patent Classification⁷: **G01C 21/26**

(21) International Application Number:
PCT/EP2004/006858

(22) International Filing Date: 24 June 2004 (24.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03014761.5 27 June 2003 (27.06.2003) EP

(71) Applicant (for all designated States except US): **HAR-
MAN BECKER AUTOMOTIVE SYSTEMS GMBH**
[DE/DE]; Becker-Goering-Strasse 16, 76307 Karlsbad
(DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LAPPE, Dirk**

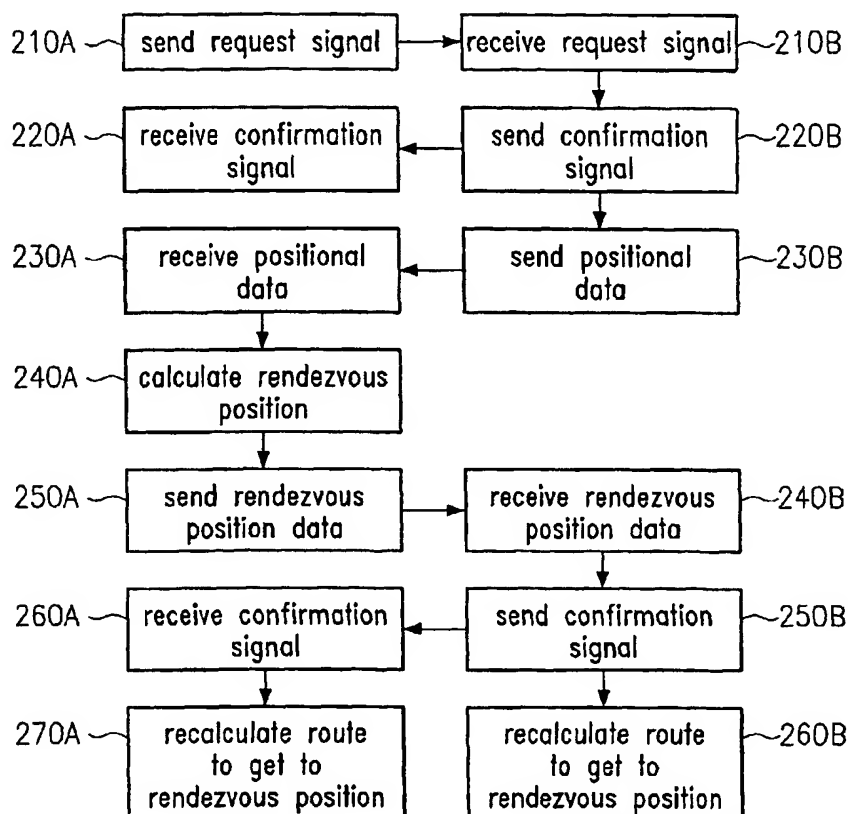
[DE/DE]; Schilling-von-Canstatt-Strasse 10A, 76228
Karlsruhe (DE). **WOLF, Stefan** [DE/DE]; Woogstrasse
1A, 64367 Mühlthal (DE). **DIBOS, Hermann** [DE/DE];
Harman Becker Automotive Systems GmbH, Becker-Go-
ering-Strasse 16, 76307 Karlsbad (DE). **HOVESTADT,
Guido** [DE/DE]; Hohe Strasse 30, 58739 Wickede-Ruhr
(DE).

(74) Agent: **WEIGELT, Udo**; Grünecker, Kinkeldey, Stock-
mair & Schwanhäusser, Maximilianstrasse 58, 80538
München (DE).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

(54) Title: NAVIGATION METHOD AND SYSTEM



(57) Abstract: The data exchange between two or more navigation devices allows a highly automated coordination of routes of navigation devices. The calculation of a route may be based on the GPS data and additionally on the positional data received from another navigation system to provide, for example, for a rendezvous function with a minimum activity from the users of the navigation devices.

WO 2005/001386 A3



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

Published:

— with international search report

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:

3 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/006858

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01C21/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01C G08G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 424 910 B1 (OHLER JEAN K ET AL) 23 July 2002 (2002-07-23) column 6, line 25 - line 36 column 11, line 2 - line 66 column 13, line 51 - column 14, line 4	1-8
X	US 5 818 356 A (SCHUESSLER ROBERT) 6 October 1998 (1998-10-06) column 6, line 17 - line 51 column 7, line 16 - line 19 column 7, line 45 - line 53 column 8, line 19 - line 56	13-21

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

15 September 2004

Date of mailing of the international search report

13.12.04

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

de Bakker, M

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/006858

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

9-12

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8, 13-21

Method, device and system for route specification using data from a first and a second navigation device.

2. claims: 9-12

Method for route coordinating using a host device that calculates intermediate positions for each route of a plurality of navigation devices.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/006858

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6424910	B1	23-07-2002	NONE
US 5818356	A	06-10-1998	DE 19539641 A1 30-04-1997
			FR 2740594 A1 30-04-1997
			GB 2306738 A ,B 07-05-1997
			IT RM960722 A1 21-01-1997
			JP 2876472 B2 31-03-1999
			JP 9223296 A 26-08-1997